

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Lashinski, et al.

Appl. No.: Unassigned

Filed: On an even date herewith

For: Method and Apparatus to Prevent
Stent Migration

Art Unit: Unassigned

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Assistant Commissioner for Patents
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Preliminary Amendment

Preliminary to examination on the merits, Applicants amend the above-referenced application as follows:

In the Claims:

Please cancel claim 1, 4, 6, and 9.

Please amend claims 11 and 12:

11. (Amended) A method of reducing migration of a stent within a body vessel, the body vessel having an inner wall, the method comprising steps of:

providing a stent having an outer surface, the outer surface being smooth;

treating the outer surface of the stent to create a plurality of substantially uniformly oriented features capable of engaging the inner wall; and

delivering the stent transluminally within the body vessel; and

engaging the multiplicity of features to the inner wall of the body vessel to reduce risk of migration by the stent.

12. (Amended) The method as defined in claim 11 wherein the step of creating a plurality of substantially uniformly oriented features comprises a step of disposing an adhesive coating on the outer surface of the stent at a plurality of locations, the step of engaging further comprising bonding the stent to the vessel surface using the adhesive coating.

Please add the following new claims:

15. An endovascular support device for implantation in a vessel within the human body, the vessel having an inner vessel surface, the endovascular support device comprising:

an expandable, generally cylindrical body portion defining a luminal surface and a vascular surface;

wherein the vascular surface includes a macroscopic surface modification that engages the inner vessel surface to yield an increased frictional force between the vascular surface of the endovascular support device and the inner surface of the vessel, the macroscopic surface modification comprising a structural alteration of the vascular surface of the tubular body portion.

16. An endovascular support device for implantation in a vessel within the human body, the vessel having an inner vessel surface, the endovascular support device comprising:

an expandable, generally cylindrical body portion made of a first material defining a luminal surface and a vascular surface;

the vascular surface including a macroscopic surface modification that engages the inner vessel surface to yield an increased frictional force between the vascular surface of the endovascular support device and the inner surface of the vessel;

wherein the macroscopic surface modification is achieved without the addition of a second material to the vascular surface of the device.

17. An expandable generally cylindrical stent for implantation in a vessel within the human body, the stent having a delivery configuration for intraluminal delivery to a treatment site in the vessel and an expanded configuration for implantation at said treatment site in the vessel, the stent comprising:

an inside surface and an outside surface, the outside surface having a macroscopic modification comprising a multiplicity of axially-oriented ridges,

wherein the delivery configuration of the stent, the multiplicity of axially-oriented ridges do not substantially affect intraluminal delivery of the stent to the treatment site, and wherein the expanded configuration, the multiplicity of axially-oriented ridges engages the vessel so as to

reduce the risk of migration of the implanted stent.

18. The stent as defined in claim 17 wherein the surface modification comprises a multiplicity of cross-axial ridges.

19. The stent as defined in claim 17 wherein the surface modification comprises a multiplicity of crisscross ridges.

20. An expandable generally cylindrical coronary stent for implantation in a vessel within the coronary vasculature, the stent comprising:

an inside surface and an outside surface, the outside surface comprising a macroscopic modification that engages the vessel surface, the macroscopic surface modification comprising a multiplicity of axially-oriented ridges.

21. The stent as defined in claim 20 wherein the macroscopic surface modification comprises a multiplicity of cross-axial ridges.

22. The stent as defined in claim 21 wherein the macroscopic surface modification comprises a multiplicity of crisscross ridges.

Respectfully Submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES

11. (Amended) A method of reducing migration of a stent within a body vessel, the body vessel having an inner wall, the method comprising steps of:

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12. (Amended) The method as defined in claim 11 wherein the step of creating a plurality of substantially uniformly oriented features comprises a step of disposing an adhesive coating on the outer surface of the stent at a plurality of locations, the step of engaging further comprising bonding the stent to the vessel surface using the adhesive coating.

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